

EXAMINER'S
SEARCH NOTES



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United States Patent [19]
Giddings et al.

[11] Patent Number: 5,596,282
[45] Date of Patent: Jan. 21, 1997

[54] TESTER FOR INTEGRATED CIRCUITS

[75] Inventors: James N. Giddings, Mesquite, Tex.; Robert P. Howell, San Jose, Calif.

[73] Assignee: Texas Instruments Incorporated, Dallas, Tex.

[21] Appl. No.: 502,590

[22] Filed: Jul. 14, 1995

Related U.S. Application Data

[63] Continuation of Ser. No. 165,226, Dec. 10, 1993, abandoned.

[51] Int. Cl. 6 G01R 31/02

[52] U.S. Cl. 324/754; 324/758

[58] Field of Search 324/72.5, 754, 324/758, 158.1, 540, 755, 756, 757

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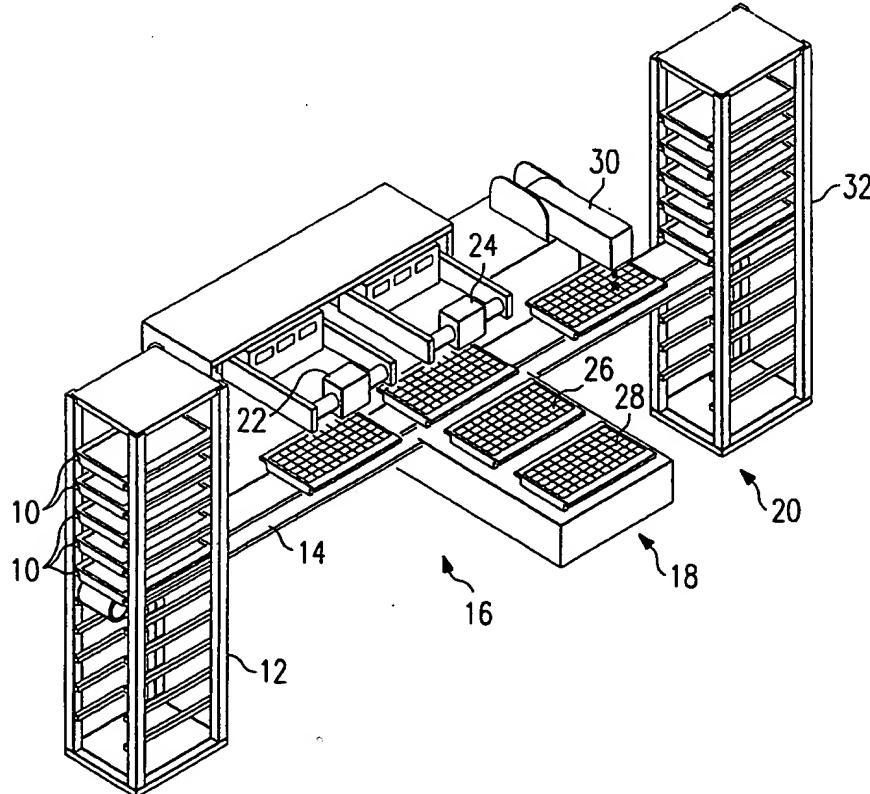
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[57] ABSTRACT

The present invention relates to the field of programming, testing, or burn-in integrated circuits. A testing device is disclosed whereby contact with the leads of an integrated circuit is made while the integrated circuit is in the shipping tray. Contact is made from a jig which is lowered onto the integrated circuit and makes contact at the shoulder of the leads of the integrated circuit, thereby contacting the integrated circuit at the strongest point of the lead and insuring good contact to the desired lead. The testing mechanism may include one jig or more jigs up to one jig for each integrated circuit in an integrated circuit storage tray. The invention allows for the testing of integrated circuits with a minimum of physical movement and manipulation of the integrated circuits.

19 Claims, 3 Drawing Sheets



US-PAT-NO: 5596282
DOCUMENT-IDENTIFIER: US 5596282 A
TITLE: Tester for integrated circuits

US Patent No. - PN (1):

5596282

Brief Summary Text - BSTX (4):

Before an integrated circuit is placed in a final product, electrical testing must be performed to insure that the integrated circuit is not defective. With the increase in complexity of integrated circuits, the time required to perform the necessary testing has increased exponentially. The complexities of the testing process have become so great that testing has become a bottleneck in the manufacturing process. This is particularly true with custom integrated circuits such as programmable arrays and application specific integrated circuits (ASICs). For these custom circuits, specific, carefully designed testing programs must be performed to insure that the customized integrated circuit meets the customer's specifications.